Commonwealth of Kentucky
Environmental and Public Protection Cabinet
Department for Environmental Protection
Division for Air Quality
803 Schenkel Lane
Frankfort, Kentucky 40601
(502) 573-3382

Final

AIR QUALITY PERMIT

Issued under 401 KAR 52:030

Permittee Name:	**Ohio Valley Aluminum**
Mailing Address:	**1100 Brooks Industrial Road** **Shelbyville, Kentucky 40065**
Source Name:	**Ohio Valley Aluminum**
Mailing Address:	**Same as above**
Source Location:	**Same as above**
Permit Number:	**F-06-039**
Source A. I. #:	**3953**
Activity #:	**APE20050002**
Review Type:	**Conditional Major/Renewal**
Source ID #:	**21-211-00001**
Regional Office:	**Frankfort Reginal Office** **643 Teton Trail, Suite B** **Frankfort, KY 40601-1758**
County:	**Shelby**
Application Complete Date:	**July 6, 2006**
Issuance Date:	**February 21, 2007**
Revision Date:	
Expiration Date:	**February 21, 2012**

John S. Lyons, Director
Division for Air Quality

Revised 10/19/05

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Permit No.	Permit type	Log or Activity#	Complete Date	Issuance Date	Summary of Action
F-00-015	**Initial**	**G-141 (50935)**	**8/11/1999**	**9/13/2000**	**Initial Issuance**
F-06-039	**Renewal**	**APE20050002**	**7/06/06**		**Permit Renewal**

SECTION A - PERMIT AUTHORIZATION

Pursuant to a duly submitted application the Kentucky Division for Air Quality hereby authorizes the operation of the equipment described herein in accordance with the terms and conditions of this permit. This permit has been issued under the provisions of Kentucky Revised Statutes Chapter 224 and regulations promulgated pursuant thereto.

The permittee shall not construct, reconstruct, or modify any affected facilities without first submitting a complete application and receiving a permit for the planned activity from the permitting authority, except as provided in this permit or in 401 KAR 52:030, Federally-enforceable permits for non-major sources.

Issuance of this permit does not relieve the permittee from the responsibility of obtaining any other permits, licenses, or approvals required by this Cabinet or any other federal, state, or local agency.

SECTION B - EMISSION POINTS, EMISSIONS UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS

01 (01), 10 (05) & 12(2)

Description: Reverberatory Furnaces Numbers 1, 2 and 5

Reverberatory furnaces processing coated and uncoated aluminum scrap, each having a capacity to process 20,900 lbs/hr and a 32 mmBTU/hr natural gas burner with #2 fuel oil as backup, all exhausting through capture hoods to a sorbent injected Wheelabrator (Model 171, Size 1224) baghouse, with 6 modules and a spark arrestor.
Date installed: January 1988
Capture efficiency of the hoods: 100%

APPLICABLE REGULATIONS:

Regulation 401 KAR 59:010, New process operations.
Regulation 401 KAR 53:010, Ambient air quality standards.
401KAR 52:030, Federally-enforceable permit for non-major source. Applies to HCL emissions.
40 CFR Part 63 Subpart RRR, National Emissions Standards for Hazardous Air Pollutant for secondary Alminum Production. Applies to D/F emissions from each group 1 furnace.

1. Operating Limitations:

a. Only one Reverberatory furnace shall process coated aluminum scrap at one time.
b. Emissions from the furnace processing coated aluminum scrap shall be ducted to and controlled by the baghouse at all time.
c. Pursuant to 40 CFR 63 Subpart RRR § 63.1506 (b), the owner or operator must provide and maintain easily visible labels posted at each group 1 furnace that identifies the applicable emission limits and means of compliance, including:
   (1) The type of affected source or emission unit (*e.g.*, scrap dryer/delacquering kiln/decoating kiln, group 1 furnace, group 2 furnace, in-line fluxer).
   (2) The applicable operational standard(s) and control method(s) (work practice or control device). This includes, but is not limited to, the type of charge to be used for a furnace (*e.g.*, clean scrap only, all scrap, etc.), flux materials and addition practices, and the applicable operating parameter ranges and requirements as incorporated in the OM&M plan.
d. Pursuant to 40 CFR 63 Subpart RRR§ 63.1506 (c), for each affected source or emission unit equipped with an add-on air pollution control device, the owner or operator must:
   (1) Design and install a system for the capture and collection of emissions to meet the engineering standards for minimum exhaust rates as published by the American Conference of Governmental Industrial Hygienists in chapters 3 and 5 of "Industrial Ventilation: A Manual of Recommended Practice" (incorporated by reference in §63.1502 of this subpart);

SECTION B - EMISSION POINTS, EMISSIONS UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

(2) Vent captured emissions through a closed system, except that dilution air may be added to emission streams for the purpose of controlling temperature at the inlet to a fabric filter; and

(3) Operate each capture/collection system according to the procedures and requirements in the OM&M plan.

e. Pursuant to 40 CFR 63 Subpart RRR § 63.1506 (d), The owner or operator of each affected source or emission unit subject to an emission limit in kg/Mg (lb/ton) or µg/Mg (gr/ton) of feed/charge must:

(1) Except as provided in paragraph (d)(3) of this section, install and operate a device that measures and records or otherwise determine the weight of feed/charge (or throughput) for each operating cycle or time period used in the performance test; and

(2) Operate each weight measurement system or other weight determination procedure in `accordance with the OM&M plan.

f. Pursuant to 40 CFR 63 Subpart RRR § 63.1506 (m), Group 1 furnace with add-on air pollution control devices. The owner or operator of a group 1 furnace with emissions controlled by a lime-injected fabric filter must:

(1) If a bag leak detection system is used to meet the monitoring requirements in §63.1510, the owner or operator must:

i. Initiate corrective action within 1 hour of a bag leak detection system alarm.

ii. Complete the corrective action procedures in accordance with the OM&M plan.

iii. Operate each fabric filter system such that the bag leak detection system alarm does not sound more than 5 percent of the operating time during a 6-month block reporting period. In calculating this operating time fraction, if inspection of the fabric filter demonstrates that no corrective action is required, no alarm time is counted. If corrective action is required, each alarm shall be counted as a minimum of 1 hour. If the owner or operator takes longer than 1 hour to initiate corrective action, the alarm time shall be counted as the actual amount of time taken by the owner or operator to initiate corrective action.

(2) Maintain the 3-hour block average inlet temperature for each fabric filter at or below the average temperature established during the performance test, plus 14 °C (plus 25 °F).

(3) For a continuous lime injection system, maintain free-flowing lime in the hopper to the feed device at all times and maintain the lime feeder setting at the same level established during the performance test.

Compliance Demonstration Method:

Ohio Valley Aluminum must demonstrate continuous compliance with § 63.1510 (b), Operation, maintenance, and monitoring (OM&M) plan. The owner or operator must

SECTION B - EMISSION POINTS, EMISSIONS UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

prepare and implement for each new or existing affected source and emission unit, a written operation, maintenance, and monitoring (OM&M) plan. The owner or operator of an existing affected source must submit the OM&M plan to the responsible permitting authority no later than the compliance date established by §63.1501(a). The owner or operator of any new affected source must submit the OM&M plan to the responsible permitting authority within 90 days after a successful initial performance test under §63.1511(b), or within 90 days after the compliance date established by §63.1501(b) if no initial performance test is required. The plan must be accompanied by a written certification by the owner or operator that the OM&M plan satisfies all requirements of this section and is otherwise consistent with the requirements of this subpart. The owner or operator must comply with all of the provisions of the OM&M plan as submitted to the permitting authority, unless and until the plan is revised in accordance with the following procedures. If the permitting authority determines at any time after receipt of the OM&M plan that any revisions of the plan are necessary to satisfy the requirements of this section or this subpart, the owner or operator must promptly make all necessary revisions and resubmit the revised plan. If the owner or operator determines that any other revisions of the OM&M plan are necessary, such revisions will not become effective until the owner or operator submits a description of the changes and a revised plan incorporating them to the permitting authority. Each plan must contain the following information:

(1) Process and control device parameters to be monitored to determine compliance, along with established operating levels or ranges, as applicable, for each process and control device.

(2) A monitoring schedule for each affected source and emission unit.

(3) Procedures for the proper operation and maintenance of each process unit and add-on control device used to meet the applicable emission limits or standards in §63.1505.

(4) Procedures for the proper operation and maintenance of monitoring devices or systems used to determine compliance, including:

i. Calibration and certification of accuracy of each monitoring device, at least once every 6 months, according to the manufacturer's instructions; and

ii. Procedures for the quality control and quality assurance of continuous emission or opacity monitoring systems as required by the general provisions in subpart A of this part.

(5) Procedures for monitoring process and control device parameters, including procedures for annual inspections of afterburners, and if applicable, the procedure to be used for determining charge/feed (or throughput) weight if a measurement device is not used.

(6) Corrective actions to be taken when process or operating parameters or add-on control device parameters deviate from the value or range established in paragraph (b)(1) of this section, including:

i. Procedures to determine and record the cause of any deviation or excursion, and the time the deviation or excursion began and ended; and

ii. Procedures for recording the corrective action taken, the time corrective action was initiated, and the time/date corrective action was completed.

SECTION B - EMISSION POINTS, EMISSIONS UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

(7) A maintenance schedule for each process and control device that is consistent with the manufacturer's instructions and recommendations for routine and long-term maintenance.

2. Emission Limitations:

a. Pursuant to 401 KAR 59:010, Section 3, opacity shall not exceed 20%.

b. Pursuant to 401 KAR 59:010, Appendix A, The emissions of particulate matter shall not exceed the allowable rate limit as calculated by the following equations using the process weight rate (in units of tons/hr).

For process rates up to 1,000 lbs/hr: $E = 2.34$
For process rates up to 60,000 lbs/hr: $E = 3.59\ P^{0.62}$
For process rates in excess of 60,000 lbs/hr: $E = 17.31\ P^{0.16}$

For the equations: E = rate of emission in lb/hr and P = process weight rate in tons/hr (monthly throughput in tons/monthly hours of operation).

c. Source-wide emissions of hydrochloric acid shall not exceed 9 tons per year.

d. Pursuant to 40 CFR 63 Subpart § 63.1505 K (3), the owner or operator must not discharge or allow to be discharged to the atmosphere any 3-day, 24-hour rolling average emissions of D/F in excess of:

$$L_{C_{D/F}} = \frac{\sum_{i=1}^{n}\left(L_{ti_{D/F}} \times T_{ti}\right)}{\sum_{i=1}^{n}\left(T_{ti}\right)} \qquad (Eq.\ 3)$$

Where,

$L_{tiD/F}$ = The D/F emission limit for individual emission unit i in paragraph (i)(3) of this section for a group 1 furnace; and

$L_{cD/F}$ = The D/F emission limit for the secondary aluminum processing unit.

Note: Clean charge furnaces cannot be included in this calculation since they are not subject to the D/F limit.

Compliance Demonstration Method:

i. To provide reasonable assurance that the particulate matter emission limitations (PM and PM_{10}) are being met, the permittee shall monitor the amount and type of process weight added to each particulate matter emissions unit. The process weight shall be determined as the average hourly tons added to the emission unit averaged over a one-month period. Average particulate emissions shall be calculated as follows:

Hourly Emission Rate (lbs/hr) = [Monthly abrasive consumed (tons/month) x Emission Factor as determined from AP-42 * (lbs/ton) / (Hours of operation per month)] (1-Control Efficiency)

* If an Emission Factor other than that taken from AP-42 is used, documentation on how that Emission Factor was derived must be submitted to the Division's Central

SECTION B - EMISSION POINTS, EMISSIONS UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

Office for approval.

ii. Compliance with the opacity limits shall be demonstrated through the following methods:

The permittee shall perform the monitoring and recordkeeping requirements listed under **4. Specific Monitoring Requirements** and **5. Specific Recordkeeping** Requirements during all periods.

iii. HCl emissions=(Monthly aluminum production rate)x(KY Emission factor in units of lb HCl per ton of aluminum charged)/(Hours of processing per month).

iv. The permittee shall demonstrate compliance with the D/F emission limit using Equation 7 in 40 CFR 63 Subpart RRR §63.1513 (b)(1) for group 1 furnace.

3. Testing Requirements:

a. Pursuant to 40 CFR 63 Subpart RRR § 63.1515 (a)(6) and in accordance with §63.9(e) and (f), the owner or operator must provide notification of the anticipated date for conducting performance tests and visible emission observations. The owner or operator must notify the Administrator of the intent to conduct a performance test at least 60 days before the performance test is scheduled; notification of opacity or visible emission observations for a performance test must be provided at least 30 days before the observations are scheduled to take place.

b. As required by § 63.7(C)(2):

i. Before conducting a required performance test, the owner or operator of an affected source shall develop and, if requested by the Administrator, shall submit a site-specific test plan to the Administrator for approval. The test plan shall include a test program summary, the test schedule, data quality objectives, and both an internal and external quality assurance (QA) program. Data quality objectives are the pretest expectations of precision, accuracy, and completeness of data.

ii. The internal QA program shall include, at a minimum, the activities planned by routine operators and analysts to provide an assessment of test data precision; an example of internal QA is the sampling and analysis of replicate samples.

iii. The external QA program shall include, at a minimum, application of plans for a test method performance audit (PA) during the performance test. The PA's consist of blind audit samples provided by the Administrator and analyzed during the performance test in order to provide a measure of test data bias. The external QA program may also include systems audits that include the opportunity for on-site evaluation by the Administrator of instrument calibration, data validation, sample logging, and documentation of quality control data and field maintenance activities.

iv. The owner or operator of an affected source shall submit the site-specific test plan the Administrator upon the Administrator's request at least 60 calendar days before the performance test is scheduled to take place, that is, simultaneously with the notification of intention to conduct a performance test required under paragraph (b) of this section, or on a

SECTION B - EMISSION POINTS, EMISSIONS UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

mutually agreed upon date

v. The Administrator may request additional relevant information after the submittal of a site-specific test plan.

c. Pursuant to 40 CFR 63 Subpart RRR § 63.1512 (j), the owner or operator of Secondary aluminum processing unit, must conduct performance tests as described in paragraphs (j)(1) through (3) of this section. The results of the performance tests are used to establish emission rates in µg TEQ/Mg of feed/charge for D/F emissions from each emission unit. These emission rates are used for compliance monitoring in the calculation of the 3-day, 24-hour rolling average emission rates using the equation in §63.1510(t). (A performance test is required for each group 1 furnace that processes scrap other than clean charge to measure emissions of D/F).

d. Pursuant to 40 CFR 63 Subpart RRR § 63.1511, following approval of the site-specific test plan, the owner or operator must demonstrate initial compliance with e applicable emission, equipment, work practice, or operational standard for each affected source and emission unit, and report the results in the notification of compliance status report as described in §63.1515(b). The owner or operator of any existing affected source for which an initial performance test is required to demonstrate compliance must conduct this initial performance test no later than the date for compliance established by §63.1501(a). The owner or operator of any new affected source for which an initial performance test is required must conduct this initial performance test within 90 days after the date for compliance established by §63.1501(b). Except for the date by which the performance test must be conducted, the owner or operator must conduct each performance test in accordance with the requirements and procedures set forth in §63.7(c). Owners or operators of affected sources located at facilities, which are area sources, are subject only to those performance testing requirements pertaining to D/F.

(1) The owner or operator must conduct each test while the affected source or emission unit is operating at the highest production level with charge materials representative of the range of materials processed by the unit and, if applicable, at the highest reactive fluxing rate.

(2) Each performance test for a continuous process must consist of 3 separate runs; pollutant sampling for each run must be conducted for the time period specified in the applicable method or, in the absence of a specific time period in the test method, for a minimum of 3 hours.

(3) Each performance test for a batch process must consist of three separate runs; pollutant sampling for each run must be conducted over the entire process operating cycle.

(4) Where multiple affected sources or emission units are exhausted through a common stack, pollutant sampling for each run must be conducted over a period of time during which all affected sources or emission units complete at least 1 entire process operating cycle or for 24 hours, whichever is shorter.

(5) Initial compliance with an applicable emission limit or standard is demonstrated if the average of three runs conducted during the performance test is less than or equal to the applicable emission limit or standard.

e. Pursuant to 40 CFR 63 Subpart RRR § 63.1511(e) Repeat tests. The owner or operator

SECTION B - EMISSION POINTS, EMISSIONS UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

of new or existing affected sources and emission units located at secondary aluminum production facilities that are major sources must conduct a performance test every 5 years following the initial performance test.

f. Pursuant to 40 CFR 63 Subpart RRR § 63.1511(g), the owner or operator of new or existing affected sources and emission units must establish a minimum or maximum operating parameter value, or an operating parameter range for each parameter to be monitored as required by §63.1510 that ensures compliance with the applicable emission limit or standard. To establish the minimum or maximum value or range, the owner or operator must use the appropriate procedures in this section and submit the information required by §63.1515(b)(4) in the notification of compliance status report. The owner or operator may use existing data in addition to the results of performance tests to establish operating parameter values for compliance monitoring provided each of the following conditions are met to the satisfaction of the applicable permitting authority:
   (1) The complete emission test report(s) used as the basis of the parameter(s) is submitted.
   (2) The same test methods and procedures as required by this subpart were used in the test.
   (3) The owner or operator certifies that no design or work practice changes have been made to the source, process, or emission control equipment since the time of the report.
   (4) All process and control equipment operating parameters required to be monitored were monitored as required in this subpart and documented in the test report.

4. Specific Monitoring Requirements:

a. Ohio Valley Aluminum shall monitor the following on a monthly basis:
   i. Aluminum scrap throughput to the holding and alloy furnaces;
   ii. Flux usage;
   iii. Sorbent usage;
   iv. HCl emissions (by calculation);
   v. Aluminum production;
   vi. Hours of operation**.**

b. Observations of visible emissions from each emission points shall be made monthly. If visible emissions are seen during the observation, Method 9 shall be used to determine the opacity.

c. Pursuant to 40 CFR 63 Subpart RRR §63.1510, the permittee shall comply with following monitoring requirements including but not limited to:
   An owner or operator of a secondary aluminum processing unit at a facility must include, within the OM&M plan prepared in accordance with §63.1510(b), the following information:
   i. The identification of each emission unit in the secondary aluminum processing unit;
   ii. The specific control technology or pollution prevention measure to be used for

SECTION B - EMISSION POINTS, EMISSIONS UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

each emission unit in the secondary aluminum processing unit and the date of its installation or application;

iii. The emission limit calculated for each secondary aluminum processing unit and performance test results with supporting calculations demonstrating initial compliance with each applicable emission limit;

iv. Information and data demonstrating compliance for each emission unit with all applicable design, equipment, work practice or operational standards of this subpart.

5. Specific Recordkeeping Requirements:

a. Monthly record keeping for:

i. Aluminum scrap throughput to the holding and alloy furnaces;
ii. Flux usage;
iii. Opacity;
iv. Sorbent usage;
v. HCl emissions;
vi. Operating hours;
vii. Aluminum production.

b. Observations of visible emissions during all periods of control equipment malfunction. If visible emissions are seen during the observation, Method 9 shall be used to determine the opacity.

c. Pursuant to 40 CFR 63 Subpart RRR §63.1516(a),the owner or operator must develop a written plan as described in §63.6(e)(3) that contains specific procedures to be followed for operating and maintaining the source during periods of startup, shutdown, and malfunction, and a program of corrective action for malfunctioning process and air pollution control equipment used to comply with the standard. The owner or operator shall also keep records of each event as required by §63.10(b) and record and report if an action taken during a startup, shutdown, or malfunction is not consistent with the procedures in the plan as described in §63.6(e)(3). In addition to the information required in §63.6(e)(3), the plan must include:

(1) Procedures to determine and record the cause of the malfunction and the time the malfunction began and ended; and

(2) Corrective actions to be taken in the event of a malfunction of a process or control device, including procedures for recording the actions taken to correct the malfunction or minimize emissions.

d. Pursuant to 40 CFR 63 Subpart RRR §63.1517 (a) and as required by §63.10(b), the owner or operator shall maintain files of all information (including all reports and notifications) required by the general provisions and this subpart:

(1) The owner or operator must retain each record for at least 5 years following the date of each occurrence, measurement, maintenance, corrective action, report, or record. The most recent 2 years of records must be retained at the facility. The remaining 3 years of records may be retained off site.

(2) The owner or operator may retain records on microfilm, computer disks, magnetic tape, or microfiche; and

(3) The owner or operator may report required information on paper or on a

SECTION B - EMISSION POINTS, EMISSIONS UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

labeled computer disk using commonly available and EPA-compatible computer software.

e. Pursuant to 40 CFR 63 Subpart RRR §63.1517 (b) (15), records for any approved alternative monitoring or test procedure.

f. Pursuant to 40 CFR 63 Subpart RRR §63.1517 (b)(16), current copy of all required plans, including any revisions, with records documenting conformance with the applicable plan, including:
   (i) Startup, shutdown, and malfunction plan;
   (ii) OM&M plan; and
   (iii) Site-specific secondary aluminum processing unit emission plan (if applicable).

g. Pursuant to 40 CFR 63 Subpart RRR §63.1517 (b)(17), for each secondary aluminum processing unit, records of total charge weight, or if the owner or operator chooses to comply on the basis of aluminum production, total aluminum produced for each 24-hour period and calculations of 3-day, 24-hour rolling average emissions.

6. Specific Reporting Requirements:

a. Any exceedance over the emission limitations stated in this permit shall be reported to the Division as specified in Section F.

b. Pursuant to 40 CFR 63 Subpart RRR §63.1515 and §63.1516, the permittee shall comply with following notification and reporting requirements including but not limited:
   i. §63.1515 (a)(4), (a)(5), (a)(6) - Initial notification.
   ii. §63.1515 (b) - Notification of compliance status report.
   iii. §63.1516 (a) - Startup, shutdown, and malfunction plan/reports.
   iv. §63.1516 (b)(1)(iv-vii), (b)(3) - Excess emissions/summary report.
   v. §63.1516 (c) - Annual compliance certifications.

7. Specific Control Equipment Operating Conditions:

Exhaust stream lime injection and baghouses shall be functional at all times of operation, and shall be operated, monitored and maintained according to site-specific OM&M plan submitted to KYDAQ.

8. Alternate Operating Scenarios:

None.

SECTION B - EMISSION POINTS, EMISSIONS UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

11 (5)

Description: Homogenizing Furnace Number 5

The homogenizing furnace is a Swindell homogenizing furnace, with a rated burner capacity of 24 MMBTU/hr and natural gas usage of 69 mmcuft/yr. The furnace operates 7200 hours/year processing hours. The homogenizing furnace processes aluminum billets at a process rate of 12,500 lb/hr with a maximum annual production of 45,000 tons.
Date installed: February 1985.

6 (1B)

Description: Homogenizing Furnace Number 6

Certified Industries Homogenizing Furnace processing aluminum billets at a process rate of 12,500 lb/hr, 45,000 tons per year maximum annual production. The furnace has a rated burner capacity 24 MMBTU/hr with an annual natural gas usage of 69 mmcuft/yr. The furnace is operated 7200 hours/year.
Date installed: February 1989.

07 (7)

Description: Homogenizing Furnace Number 7

Natural gas-fired homogenizing furnace with a heat input capacity of 30 MMBTU/hr. Manufactured by Certified Industrial Technologies #8251, Homogenizing Furnace, operated at 8760 hours/year. The furnace processes homogenizing aluminum billets with a maximum process rate of 19,167 lbs/hr.
Date installed: February 1995.

APPLICABLE REGULATIONS:

Regulation 401 KAR 59:010, New process operations.

1. Operating Limitations:

None.

2. Emission Limitations:

a) Pursuant to 401 KAR 59:010, Section 3, opacity shall not exceed 20%.

b) Pursuant to 401 KAR 59:010, Appendix A, The emissions of particulate matter shall not exceed the allowable rate limit as calculated by the following equations using the process weight rate (in units of tons/hr).

For process rates up to 1,000 lbs/hr: $E = 2.34$
For process rates up to 60,000 lbs/hr: $E = 3.59\ P^{0.62}$
For process rates in excess of 60,000 lbs/hr: $E = 17.31\ P^{0.16}$

For the equations: E = rate of emission in lb/hr and P = process weight rate in tons/hr (monthly throughput in tons/monthly hours of operation).

SECTION B - EMISSION POINTS, EMISSIONS UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

Compliance Demonstration Method:

401 KAR 59:010, New process operations:

a) To provide reasonable assurance that the particulate matter emission limitations (PM and PM_{10}) are being met, the permittee shall monitor the amount and type of process weight added to each particulate matter emissions unit. The process weight shall be determined as the average hourly tons added to the emission unit averaged over a one-month period. Average particulate emissions shall be calculated as follows:

Hourly Emission Rate (lbs/hr) = [Monthly abrasive consumed (tons/month) x Emission Factor as determined from AP-42 * (lbs/ton) / (Hours of operation per month)] (1-Control Efficiency)

* If an Emission Factor other than that taken from AP-42 is used, documentation on how that Emission Factor was derived must be submitted to the Division's Central Office for approval.

b) Compliance with the opacity limits shall be demonstrated through the following methods:

The permittee shall perform the monitoring and recordkeeping requirements listed under **4. Specific Monitoring Requirements** and **5. Specific Recordkeeping** Requirements during all periods.

3. Testing Requirements:

None.

4. Specific Monitoring Requirements:

Ohio Valley Aluminum shall monitor the following on a monthly basis:

i. Observations of visible emissions from each emission points shall be made monthly. If visible emissions are seen during the observation, Method 9 shall be used to determine the opacity.
ii. Aluminum billet/log throughput;
iii. Hours of operation**.**

5. Specific Recordkeeping Requirements:

Ohio Valley Aluminum must retain records of the following:

i. Aluminum billet/log throughput;
ii. Opacity;
iii. Operating hours.

6. Specific Reporting Requirements:

None.

SECTION B - EMISSION POINTS, EMISSIONS UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

08 (2B)

Description: Aluminum Holding Furnace and Alloy Furnace Number 2B

Custom made holding furnace with a rated burner capacity of 8MMBTU/hr of natural gas. The furnace uses #2 fuel oil as backup fuel. The furnace has a maximum processing rate of 20,900 lbs/hr. The furnace operates 6912 processing hours/year or 8760 hours with idle time.
Date installed: February 1989.

09 (04)

Description: Aluminum Holding Furnace and Alloy Furnace Number 4

Custom made holding furnace using natural gas with a burner capacity rating of 8MMBTU/hr and #2 fuel oil as backup. The furnace is 6912 processing hours/year or 8760 hours on (idle). The furnace has a processing rate 20,900 lbs/hr.
Date installed: August 1982.

APPLICABLE REGULATIONS:

Regulation 401 KAR 59:010, New process operations.

1. Operating Limitations:

None.

2. Emission Limitations:

a) Pursuant to 401 KAR 59:010, Section 3, opacity shall not exceed 20%.

b) Pursuant to 401 KAR 59:010, Appendix A, The emissions of particulate matter shall not exceed the allowable rate limit as calculated by the following equations using the process weight rate (in units of tons/hr).

For process rates up to 1,000 lbs/hr: $E = 2.34$
For process rates up to 60,000 lbs/hr: $E = 3.59\ P^{0.62}$
For process rates in excess of 60,000 lbs/hr: $E = 17.31\ P^{0.16}$

For the equations: E = rate of emission in lb/hr and P = process weight rate in tons/hr (monthly throughput in tons/monthly hours of operation).

Compliance Demonstration Method:

401 KAR 59:010, New process operations:

a) To provide reasonable assurance that the particulate matter emission limitations (PM and PM_{10}) are being met, the permittee shall monitor the amount and type of process weight added to each particulate matter emissions unit. The process weight shall be determined as the average hourly tons added to the emission unit averaged over a one-month period. Average particulate emissions shall be calculated as follows:

SECTION B - EMISSION POINTS, EMISSIONS UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

Hourly Emission Rate (lbs/hr) = [Monthly abrasive consumed (tons/month) x Emission Factor as determined from AP-42 * (lbs/ton) / (Hours of operation per month)] (1-Control Efficiency)

* If an Emission Factor other than that taken from AP-42 is used, documentation on how that Emission Factor was derived must be submitted to the Division's Central Office for approval.

b) Compliance with the opacity limits shall be demonstrated through the following methods:

The permittee shall perform the monitoring and recordkeeping requirements listed under **4. Specific Monitoring Requirements** and **5. Specific Recordkeeping** Requirements during all periods.

3. Testing Requirements:

None.

4. Specific Monitoring Requirements:

Ohio Valley Aluminum shall monitor the following on a monthly basis:

i. Observations of visible emissions from each emission points shall be made monthly. If visible emissions are seen during the observation, Method 9 shall be used to determine the opacity.
ii. Molten Aluminum throughput;
iii. Hours of operation**.**

5. Specific Recordkeeping Requirements:

Ohio Valley Aluminum must retain records of the following

i. Molten aluminum throughput;
ii. Opacity;
iii. Operating hours.

6. Specific Reporting Requirements:

None.

SECTION C - INSIGNIFICANT ACTIVITIES :

The following listed activity has been determined to be insignificant activity for this source pursuant to 401 KAR 52:030, Section 6. While this activity is designated as insignificant the permittee must comply with the applicable regulation and some minimal level of periodic monitoring may be necessary.

	Description	Generally Applicable Regulation
1.	Emissions from the lubricant used on the saw blade.	401 KAR 59:010,New Process Operation

SECTION D - SOURCE EMISSION LIMITATIONS AND TESTING REQUIREMENTS

1. Plant wide emissions of individual HAPs shall not exceed 9 tons/yr each and plant wide emissions of combination HAPS shall not exceed 22.5 tons/yr (Preclude Title V applicability) .

2. PM/PM10, VOC and HAPs emissions, measured by applicable reference methods, or an equivalent or alternative method specified in 40 C.F.R. Chapter I, or by a test method specified in the state implementation plan shall not exceed the respective limitations specified herein.

3. Compliance with annual emissions and processing limitations imposed pursuant to 401 KAR 52:030, and contained in this permit, shall be based on emissions and processing rates for any twelve (12) consecutive months. Monthly emissions of VOC, single and combined HAPs shall be calculated and shall be used to calculate rolling twelve (12) month total (also see Section B). The rolling twelve month total shall be calculated for single HAP and combined HAPs on a monthly basis and shall be compared to above annual limits.

SECTION E - SOURCE CONTROL EQUIPMENT REQUIREMENTS

Pursuant to 401 KAR 50:055, Section 2(5), at all times, including periods of startup, shutdown and malfunction, owners and operators shall, to the extent practicable, maintain and operate any affected facility including associated air pollution control equipment in a manner consistent with good air pollution control practice for minimizing emissions. Determination of whether acceptable operating and maintenance procedures are being used will be based on information available to the Division which may include, but is not limited to, monitoring results, opacity observations, review of operating and maintenance procedures, and inspection of the source.

SECTION F - MONITORING, RECORDKEEPING, AND REPORTING REQUIREMENTS

1. Pursuant to Section 1b (IV)(1) of the Cabinet Provisions and Procedures for Issuing Federally-Enforceable Permits for Non-Major Sources incorporated by reference in 401 KAR 52:030 Section 10, when continuing compliance is demonstrated by periodic testing or instrumental monitoring, the permittee shall compile records of required monitoring information that include:
   a. Date, place (as defined in this permit), and time of sampling or measurements;
   b. Analyses performance dates;
   c. Company or entity that performed analyses;
   d. Analytical techniques or methods used;
   e. Analyses results; and
   f. Operating conditions during time of sampling or measurement.

2. Records of all required monitoring data and support information, including calibrations, maintenance records, and original strip chart recordings, and copies of all reports required by the Division for Air Quality, shall be retained by the permittee for a period of five years and shall be made available for inspection upon request by any duly authorized representative of the Division for Air Quality[401 KAR 52:030 Section 3(1)(f)1a and Section 1a (7) of the Cabinet Provisions and Procedures for Issuing Federally-Enforceable Permits for Non-Major Sources incorporated by reference in 401 KAR 52:030 Section 10].

3. In accordance with the requirements of 401 KAR 52:030 Section 3(1)f the permittee shall allow authorized representatives of the Cabinet to perform the following during reasonable times:
   a. Enter upon the premises to inspect any facility, equipment (including air pollution control equipment), practice, or operation;
   b. To access and copy any records required by the permit:
   c. Sample or monitor, at reasonable times, substances or parameters to assure compliance with the permit or any applicable requirements.

   Reasonable times are defined as during all hours of operation, during normal office hours; or during an emergency.

4. No person shall obstruct, hamper, or interfere with any Cabinet employee or authorized representative while in the process of carrying out official duties. Refusal of entry or access may constitute grounds for permit revocation and assessment of civil penalties.

5. Summary reports of any monitoring required by this permit, other than continuous emission or opacity monitors, shall be submitted to the Regional Office listed on the front of this permit at least every six (6) months during the life of this permit, unless otherwise stated in this permit. For emission units that were still under construction or which had not commenced operation at the end of the 6-month period covered by the report and are subject to monitoring requirements in this permit, the report shall indicate that no monitoring was performed during the previous six months because the emission unit was not in operation.

SECTION F - MONITORING, RECORDKEEPING, AND REPORTING REQUIREMENTS (CONTINUED)

6. The semi-annual reports are due by January 30th and July 30th of each year. All reports shall be certified by a responsible official pursuant to 401 KAR 52:020 Section 23. If continuous emission and opacity monitors are required by regulation or this permit, data shall be reported in accordance with the requirements of 401 KAR 59:005, General Provisions, Section 3(3). All deviations from permit requirements shall be clearly identified in the reports

7. In accordance with the provisions of 401 KAR 50:055, Section 1 the owner or operator shall notify the Regional Office listed on the front of this permit concerning startups, shutdowns, or malfunctions as follows:
   a. When emissions during any planned shutdowns and ensuing startups will exceed the standards, notification shall be made no later than three (3) days before the planned shutdown, or immediately following the decision to shut down, if the shutdown is due to events which could not have been foreseen three (3) days before the shutdown.
   b. When emissions due to malfunctions, unplanned shutdowns and ensuing startups are or may be in excess of the standards, notification shall be made as promptly as possible by telephone (or other electronic media) and shall be submitted in writing upon request.

8. The owner or operator shall report emission related exceedances from permit requirements including those attributed to upset conditions (other than emission exceedances covered by Section F.7. above) to the Regional Office listed on the front of this permit within *30 days*. Deviations from permit requirements, including those previously reported under F.7 above, shall be included in the semiannual report required by F.6 [Section 1b V(3) and (4) of the Cabinet Provisions and Procedures for Issuing Federally-Enforceable Permits for Non-Major Sources incorporated by reference in 401 KAR 52:030 Section 10].

9. Pursuant to 401KAR 52:030, Section 21, the permittee shall annually certify compliance with the terms and conditions contained in this permit by completing and returning a Compliance Certification Form (DEP 7007CC) (or an alternative approved by the regional office) to the Regional Office listed on the front of this permit in accordance with the following requirements:
   a. Identification of each term or condition;
   b. Compliance status of each term or condition of the permit;
   c. Whether compliance was continuous or intermittent;
   d. The method used for determining the compliance status for the source, currently and over the reporting period.
   e. For an emissions unit that was still under construction or which has not commenced operation at the end of the 12-month period covered by the annual compliance certification, the permittee shall indicate that the unit is under construction and that compliance with any applicable requirements will be demonstrated within the timeframes specified in the permit.

SECTION F - MONITORING, RECORDKEEPING, AND REPORTING REQUIREMENTS (CONTINUED)

f. The certification shall be postmarked by January 30th of each year. Annual compliance certifications should be mailed to the following addresses:

Division for Air Quality Frankfort Regional Office 643 Tenton trail, Suite B Frankfort, KY 40601	Division for Air Quality Central Files 803 Schenkel Lane Frankfort, KY 40601

10. In accordance with 401KAR 52:030, Section 3(1)(d), the permittee shall provide the Division with all information necessary to determine its subject emissions within thirty (30) days of the date the KYEIS emission survey is mailed to the permittee. If a KYEIS emission survey is not mailed to the permittee, then the permittee shall comply with all other emission reporting requirements in this permit.

11. Results of performance test(s) required by the permit shall be submitted to the Division by the source or its representative within forty-five days or sooner if required by an applicable standard, after the completion of the fieldwork.

12. The Cabinet may authorize the temporary use of an emission unit to replace a similar unit that is taken off-line for maintenance, if the following conditions are met:

a. The owner or operator shall submit to the Cabinet, at least ten (10) days in advance of replacing a unit, the appropriate Forms DEP7007AI to DD that show:
   i. The size and location of both the original and replacement units; and
   ii. Any resulting change in emissions;

b. The potential to emit (PTE) of the replacement unit shall not exceed that of the original unit by more than twenty-five (25) percent of a major source threshold, and the emissions from the unit shall not cause the source to exceed the emissions allowable under the permit;

c. The PTE of the replacement unit or the resulting PTE of the source shall not subject the source to a new applicable requirement;

d. The replacement unit shall comply with all applicable requirements; and

e. The source shall notify Regional office of all shutdowns and start-ups.

f. Within six (6) months after installing the replacement unit, the owner or operator shall:
   i. Re-install the original unit and remove or dismantle the replacement unit; or
   ii. Submit an application to permit the replacement unit as a permanent change.

SECTION G - GENERAL PROVISIONS

1. General Compliance Requirements

   a. The permittee shall comply with all conditions of this permit. A noncompliance shall be a violation of 401 KAR 52:030 Section 3(1)(b) and is also a violation of Federal Statute 42 USC 7401 through 7671q (the Clean Air Act). Noncompliance with this permit is grounds for enforcement action including but not limited to the termination, revocation and reissuance, revision, or denial of a permit [Section 1a (2) of the *Cabinet Provisions and Procedures for Issuing Federally-Enforceable Permits for Non-Major Sources* incorporated by reference in 401 KAR 52:030 Section 10].

   b. The filing of a request by the permittee for any permit revision, revocation, reissuance, or termination, or of a notification of a planned change or anticipated noncompliance, shall not stay any permit condition [Section 1a (5) of the Cabinet Provisions and Procedures for Issuing Federally-Enforceable Permits for Non-Major Sources incorporated by reference in 401 KAR 52:030 Section 10].

   c. This permit may be revised, revoked, reopened and reissued, or terminated for cause in accordance with 401 KAR 52:030 Section 18. The permit will be reopened for cause and revised accordingly under the following circumstances:
      (1) If additional applicable requirements become applicable to the source and the remaining permit term is three (3) years or longer. In this case, the reopening shall be completed no later than eighteen (18) months after promulgation of the applicable requirement. A reopening shall not be required if compliance with the applicable requirement is not required until after the date on which the permit is due to expire, unless this permit or any of its terms and conditions have been extended pursuant to 401 KAR 52:030 Section 12;
      (2) The Cabinet or the U. S. EPA determines that the permit must be revised or revoked to assure compliance with the applicable requirements;
      (3) The Cabinet or the U. S. EPA determines that the permit contains a material mistake or that inaccurate statements were made in establishing the emissions standards or other terms or conditions of the permit.

   d. Proceedings to reopen and reissue a permit shall follow the same procedures as apply to initial permit issuance and shall affect only those parts of the permit for which cause to reopen exists. Reopenings shall be made as expeditiously as practicable. Reopenings shall not be initiated before a notice of intent to reopen is provided to the source by the Division, at least thirty (30) days in advance of the date the permit is to be reopened, except that the Division may provide a shorter time period in the case of an emergency.

   e. The permittee shall furnish information upon request of the Cabinet to determine if cause exists for modifying, revoking and reissuing, or terminating the permit; or to determine compliance with the conditions of this permit[Sections 1a (6) and (7) of the *Cabinet Provisions and Procedures for Issuing Federally-Enforceable Permits for Non-Major Sources* incorporated by reference in 401 KAR 52:030 Section 10].

SECTION G - GENERAL PROVISIONS (CONTINUED)

f. The permittee, upon becoming aware that any relevant facts were omitted or incorrect information was submitted in the permit application, shall promptly submit such supplementary facts or corrected information to the permitting authority [401 KAR 52:030 Section 7(1)].

g. Any condition or portion of this permit which becomes suspended or is ruled invalid as a result of any legal or other action shall not invalidate any other portion or condition of this permit [Section 1a (11) of the *Cabinet Provisions and Procedures for Issuing Federally-Enforceable Permits for Non-Major Sources* incorporated by reference in 401 KAR 52:030 Section 10].

h. The permittee shall not use as a defense in an enforcement action the contention that it would have been necessary to halt or reduce the permitted activity in order to maintain compliance [Section 1a (3) of the *Cabinet Provisions and Procedures for Issuing Federally-Enforceable Permits for Non-Major Sources* incorporated by reference in 401 KAR 52:030 Section 10].

i. Except for requirements identified in this permit as state-origin requirements, all terms and conditions shall be enforceable by the United States Environmental Protection Agency and citizens. [Section 1a (12)(b) of the *Cabinet Provisions and Procedures for Issuing Federally-Enforceable Permits for Non-Major Sources* incorporated by reference in 401 KAR 52:030 Section 10].

j. This permit shall be subject to suspension if the permittee fails to pay all emissions fees within 90 days after the date of notice as specified in 401 KAR 50:038 Section 3(6) [Section 1a (9) of the *Cabinet Provisions and Procedures for Issuing Federally-Enforceable Permits for Non-Major Sources* incorporated by reference in 401 KAR 52:030 Section 10].

k. Nothing in this permit shall alter or affect the liability of the permittee for any violation of applicable requirements prior to or at the time of permit issuance [401 KAR 52:030 Section 11(3)].

l. This permit does not convey property rights or exclusive privileges [Section 1a (8) of the *Cabinet Provisions and Procedures for Issuing Federally-Enforceable Permits for Non-Major Sources* incorporated by reference in 401 KAR 52:030 Section 10].

m. Issuance of this permit does not relieve the permittee from the responsibility of obtaining any other permits, licenses, or approvals required by the Cabinet or any other federal, state, or local agency.

n. Nothing in this permit shall alter or affect the authority of U.S. EPA to obtain information pursuant to Federal Statute 42 USC 7414, Inspections, monitoring, and entry.

o. Nothing in this permit shall alter or affect the authority of U.S. EPA to impose emergency orders pursuant to Federal Statute 42 USC 7603, Emergency orders.

SECTION G - GENERAL PROVISIONS (CONTINUED)

p. This permit consolidates the authority of any previously issued PSD, NSR, or Synthetic minor source preconstruction permit terms and conditions for various emission units and incorporates all requirements of those existing permits into one single permit for this source.

q. Permit Shield – A permit shield shall not protect the owner or operator from enforcement actions for violating an applicable requirement prior to or at the time of permit issuance. Compliance with the conditions of this permit shall be considered compliance with:
(1) Applicable requirements that are included and specifically identified in this permit; and
(2) Non-applicable requirements expressly identified in this permit.

r. Emission units described in this permit shall demonstrate compliance with applicable requirements if requested by the Division [401 KAR 52:030 Section 3(1)(c)].

s. The authority to operate granted through this permit shall cease to apply if the source fails to submit additional information requested by the Division after the completeness determination has been made on any application, by whatever deadline the Division sets [401 KAR 52:030 Section 8(2)].

2. Permit Expiration and Reapplication Requirements

This permit shall remain in effect for a fixed term of five (5) years following the original date of issue. Permit expiration shall terminate the source's right to operate unless a timely and complete renewal application has been submitted to the Division at least six months prior to the expiration date of the permit. Upon a timely and complete submittal, the authorization to operate within the terms and conditions of this permit, including any permit shield, shall remain in effect beyond the expiration date, until the renewal permit is issued or denied by the Division [401 KAR 52:030 Section 12].

3. Permit Revisions

a. Minor permit revision procedures specified in 401 KAR 52:030 Section 14(3) may be used for permit revisions involving the use of economic incentive, marketable permit, emission trading, and other similar approaches, to the extent that these minor permit revision procedures are explicitly provided for in the SIP or in applicable requirements and meet the relevant requirements of 401 KAR 52:030 Section 14(2).

b. This permit is not transferable by the permittee. Future owners and operators shall obtain a new permit from the Division for Air Quality. The new permit may be processed as an administrative amendment if no other change in this permit is necessary, and provided that a written agreement containing a specific date for transfer of permit responsibility coverage and liability between the current and new permittee has been submitted to the permitting authority within ten (10) days following the transfer.

SECTION G - GENERAL PROVISIONS (CONTINUED)

4. Construction, Start-Up, and Initial Compliance Demonstration Requirements
No construction authorized by this permit

5. Acid Rain Program Requirements

a. If an applicable requirement of Federal Statute 42 USC 7401 through 7671q (the Clean Air Act) is more stringent than an applicable requirement promulgated pursuant to Federal Statute 42 USC 7651 through 7651o (Title IV of the Act), both provisions shall apply, and both shall be state and federally enforceable.

6. Emergency Provisions

a. Pursuant to 401 KAR 52:030 Section 23(1), an emergency shall constitute an affirmative defense to an action brought for noncompliance with the technology-based emission limitations if the permittee demonstrates through properly signed contemporaneous operating logs or other relevant evidence that:
(1) An emergency occurred and the permittee can identify the cause of the emergency;
(2) The permitted facility was at the time being properly operated;
(3) During an emergency, the permittee took all reasonable steps to minimize levels of emissions that exceeded the emissions standards or other requirements in the permit; and,
(4) The permittee notified the Division as promptly as possible and submitted written notice of the emergency to the Division within two (2) working days of the time when emission limitations were exceeded due to an emergency. The notice shall include a description of the emergency, steps taken to mitigate emissions, and the corrective actions taken.
(5) Notification of the Division does not relieve the source of any other local, state or federal notification requirements.

b. Emergency conditions listed in General Provision G(f)1 above are in addition to any emergency or upset provision(s) contained in an applicable requirement [401 KAR 52:030 Section 23(3)].

c. In an enforcement proceeding, the permittee seeking to establish the occurrence of an emergency shall have the burden of proof [401 KAR 52:030 Section 23(2)].

7. Risk Management Provisions

a. The permittee shall comply with all applicable requirements of 401 KAR Chapter 68, Chemical Accident Prevention, which incorporates by reference 40 CFR Part 68, Risk Management Plan provisions. If required, the permittee shall comply with the Risk Management Program and submit a Risk Management Plan to:

RMP Reporting Center
P.O. Box 1515
Lanham-Seabrook, MD 20703-1515.

SECTION G - GENERAL PROVISIONS (CONTINUED)

b. If requested, submit additional relevant information to the Division or the U.S. EPA.

8. Ozone depleting substances

a. The permittee shall comply with the standards for recycling and emissions reduction pursuant to 40 CFR 82, Subpart F, except as provided for Motor Vehicle Air Conditioners (MVACs) in Subpart B:
   (1) Persons opening appliances for maintenance, service, repair, or disposal shall comply with the required practices contained in 40 CFR 82.156.
   (2) Equipment used during the maintenance, service, repair, or disposal of appliances shall comply with the standards for recycling and recovery equipment contained in 40 CFR 82.158.
   (3) Persons performing maintenance, service, repair, or disposal of appliances shall be certified by an approved technician certification program pursuant to 40 CFR 82.161.
   (4) Persons disposing of small appliances, MVACs, and MVAC-like appliances (as defined at 40 CFR 82.152) shall comply with the recordkeeping requirements pursuant to 40 CFR 82.166.
   (5) Persons owning commercial or industrial process refrigeration equipment shall comply with the leak repair requirements pursuant to 40 CFR 82.156.
   (6) Owners/operators of appliances normally containing 50 or more pounds of refrigerant shall keep records of refrigerant purchased and added to such appliances pursuant to 40 CFR 82.166.

b. If the permittee performs service on motor (fleet) vehicle air conditioners containing ozone-depleting substances, the source shall comply with all applicable requirements as specified in 40 CFR 82, Subpart B, Servicing of Motor Vehicle Air Conditioners.

SECTION H - ALTERNATE OPERATING SCENARIOS:

None

SECTION I - COMPLIANCE SCHEDULE:

None